APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/474,191	12/29/1999	TADAO MORISHITA	49376(868)	1975

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EXAMINER
CHANG, JON CARLTON

ART UNIT	PAPER NUMBER
2623	

DATE MAILED: 03/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.	Applicant(s)
Office Action Summary	09/474,191	MORISHITA, TADAO
	Examiner	Art Unit
	Jon Chang	2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>31 December 2002</u> .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2,3 and 5-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2,3,7 and 9* is/are rejected.

7)☒ Claim(s) *5,6 and 8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .   6) ☐ Other: .

Response to Amendment and Arguments

1.   The amendment filed December 31, 2002, has been entered and made of

record.

In response to the amendment to claim 7, the rejection under 35 U.S.C. § 112,

second paragraph, is withdrawn.

With regard to newly added material to the specification (page 6, lines 3-10), and

the claims (claim 3), Applicant states that support for the material is found at page 6,

lines 11-15, page 17, lines 18-23, page 18, lines 5-16 and page 20, lines 11-18. The

Examiner has thoroughly reviewed these portions of the specification. Page 6, lines 11-

15 describes sequentially carrying out image processing based on the recognition of a

common portion between an image inputted immediately before, and a newly inputted

image. On page 17, lines 18-23 describes that a common portion between documents

A and B is stored, and comparing the document with a document C in storage, and a

common portion between A, B and C is supplied as a comparison result. Page 18, lines

5-16 describes subject N documents to the process, repeating steps a2-a4 for

documents 2 to N-1, and processing document N by steps a5-a7, producing a master

document from when there is no master document, and an explanation of the

capabilities of the process. Page 20, lines 11-18 describes the process for extracting

from 3 or more documents, the results from the comparing means are sent from the

output means to image processing section when the last document is compared. At

other times, a result of the comparison means is sent to the storing means and replaced with data previously stored in the storing means.

The Examiner would like to first point out that wording of page 20, lines 14-16 appears to be incorrect. At that location, the specification states, "a result of comparison by the comparing means 4 is sent from the output means 6 to the storing means 5 and **replaced with** data previously stored in the storing means." (emphasis added). This does not appear to be what the invention is doing. It appears that "replaced with" should be corrected to read --replaces the--.

Based on the above analysis, it appears that the limitation in claim 3 of, "the output means sequentially replaces an image stored in the storing means with an image outputted from the comparing means after each input of one of said kinds of images." appears to be supported in the original specification. However, it does **not** appear that the limitation in claim 3 of, "prior to the next sequential input of another of said kinds of images" is supported by the original specification. The limitation as claimed, requires that the sequential replacement occurs prior to the next sequential input of another of said kinds of images. The Examiner therefore considers this new matter.

Applicant's arguments have been fully considered, but are deemed to be moot in view of the new grounds of rejection.

Allowability Withdrawn

2.   The indicated allowability of claims 2, 4 and 6 is withdrawn in view of the newly

discovered reference(s) to Koerich et al. Rejections based on the newly cited

reference(s) follow.

New Matter

3.   The amendment filed December 31, 2002 is objected to under 35 U.S.C. 132

because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no

amendment shall introduce new matter into the disclosure of the invention. The added

material which is not supported by the original disclosure is as follows: in the

amendment to page 6, lines 3-10, the language, "the output means sequentially

replaces...**prior to the next sequential input of another of the kinds of images**." (the

bolded part, emphasized by the Examiner, is considered new matter).

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

4.   Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

Claim 9 depends from claim 4 which has been canceled by Applicant's'

amendment filed December 31, 2002.

5.   Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as containing subject

matter which was not described in the specification in such a way as to reasonably

convey to one skilled in the relevant art that the inventor(s), at the time the application

was filed, had possession of the claimed invention.

In claim 3, the newly added limitation of "...prior to the next sequential input of

another of said kinds of images" does not appear to have antecedent support in the

original disclosure.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Koerich et al. "A System for Automatic Extraction of the User-Entered Data from

Bankchecks" (hereinafter "Koerich").

With regard to claim 2, Koerich discloses an image processing apparatus (note

the system in Fig.3, and references to "modules" and "algorithms" in the "System

Overview" section, indicating a computer-based apparatus) comprising at least:

input means for carrying out a distribution process of image information inputted

through an image input mechanism (Fig.3, "Optical Scanner");

storing means for storing an image (Fig.3, "Database");

comparing means for comparing an image inputted through the input means with

an image stored in the storing means (Fig.3, "Image Processing"; section "Background

Pattern Elimination"); and

output means for outputting a result of comparison by the comparing means

(Fig.3, output of "Image Processing"), wherein the comparing means includes

calculating means for calculating a difference in pixel values which represent pixel

densities, between an image newly inputted through the input means and an image

stored in the storing means, and recognizing means for recognizing a portion common

to the stored and newly input images by comparing an output of the calculating means

with a preset threshold value (note in section "Background Pattern Elimination" the

apparatus calculates a difference between a newly inputted image, $a_n(x,y)$, and a

background pattern image, $b_n(x,y)$, stored in the database, and compares it to a

threshold T.);

wherein the comparing means includes extracting means for causing the output

means to output only pixels corresponding to pixels of the stored and newly input

images respectively when the difference in pixel values calculated by the calculating

means is equal to or less than the threshold value (note in section "Background Pattern

Elimination" the equation for $c_n(x,y)$ indicates that when the difference is less than or

equal to the threshold value T, $c_n(x,y)$ takes on a value of 1 (i.e., a pixel is output),

otherwise, the $c_n(x,y)$ takes on a value of 0 (i.e., no pixel is output)).

Koerich does not disclose that the image stored in the storing means (the

"Database") is inputted through the input means. However, since the background

patterns in the database are images (see first line of section "Database"), it would have been obvious to utilize an input means, such as a scanner, to input the image, in order to store it in the database. Also, since the system already provides an optical scanner as an input means, it would have been further obvious to utilize the optical scanner to input the image in the database because it is already available, thus being more economical than utilizing a second input means.

With regard to claim 7, Koerich discloses a setting means for allowing a user to set the threshold value (this is inherent. Note in the next to last sentence of the section "Background Pattern Elimination" the reference indicates that T was chosen to be 20. This provides evidence that T is settable by a user, and therefore the system must have some means for allowing T to be set.).

Allowable Subject Matter

8.   Claims 5 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Duplicate Claims

9.   Claim 8 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 5. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of

the allowed claim. See MPEP § 706.03(k). Claim 5 has been indicated as containing

allowable subject matter above.

Subject Matter Not Found in the Prior Art

10.   The subject matter of claim 3 has not been found in the prior art. Allowability

cannot be indicated due to the presence of new matter. The subject matter of claims 8

and 9 has not been found in the prior art. Allowability of claims 8 and 9 cannot be

indicated because claim 8 is a substantial duplicate of claim 5.

References Cited

11.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Okada et al. "A Morphological Subtraction Scheme for Form Analysis" teaches a

method for extracting user entered components from various forms. The ruled lines and

background (i.e., common portions) are eliminated using a morphological subtraction.
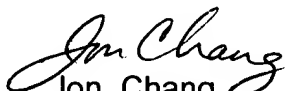
Contact Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jon Chang whose telephone number is (703)305-8439.

The examiner can normally be reached on M-F 8:00 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Amelia Au can be reached on (703)308-6604. The fax phone numbers for

the organization where this application or proceeding is assigned are (703)872-9314 for

regular communications and (703)872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703)305-

4700.

Jon Chang
Primary Examiner
Art Unit 2623

Jon Chang
March 14, 2003